AMENDMENTS TO THE CLAIMS

1. (Currently amended): A method in a logically partitioned data processing system for preserving trace data after a partition crash, said logically partitioned data processing system including a plurality of processors and a plurality of partitions, each one of said plurality of partitions executing its own separate operating system, errors from an operating system being executed by one of said plurality of partitions not affecting the operation of operating systems being executed by all others of said plurality of partitions, said method comprising the steps of:

encountering an unrecoverable error in one of said plurality of processors that is assigned to one of said plurality of partitions that results in a crash of said one of said plurality of partitions, remaining ones of said plurality of partitions continuing to function after said crash, each one of said plurality of processors being assigned to a different one of said plurality of partitions;

storing trace data for all of said partitions in said trace buffer;

continually overwriting data that is already stored in said trace buffer with newly received trace data as said newly received trace data is received within said trace buffer;

storing, in said trace buffer, error data ~~in a trace buffer~~ associated with said error; and

saving the current ~~storing~~ contents of said trace buffer prior to said error data being overwritten.

2. (Canceled)

3. (Currently amended): The method according to claim 1, further comprising the step of saving ~~storing~~ said contents of said trace buffer in non-volatile storage prior to said error data being overwritten.

4. (Currently amended): The method according to claim 1, further comprising the steps of:

PAGE 4/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42
BEST AVAILABLE COPY

encountering said error; and

storing a keyword with said error data in said trace buffer.

5. (Currently amended): The method according to claim 4, further comprising the step of saving ~~storing~~ contents of said trace buffer in response to a detection of said keyword in said contents of said trace buffer.

6. (Currently amended): The method according to claim 1, further comprising the steps of:

encountering said error;

servicing said error; and

storing a keyword with said error data in said trace buffer during said servicing of said error.

7. (Original): The method according to claim 6, further comprising the step of rebooting said one of said plurality of partitions after said storage of said keyword.

8. (Currently amended): The method according to claim 1, further comprising the steps of:

providing a trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer; and

storing said error data in a trace buffer associated with said error utilizing said trace facility.

9. (Original): The method according to claim 1, further comprising the steps of:

receiving data to be stored in said trace buffer;

determining whether said data includes a keyword; and

in response to a determination that said data includes said keyword, copying contents of said trace buffer.

PAGE 5/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

10. (Original): The method according to claim 1, further comprising the step of:

providing a trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer;

receiving data, utilizing said trace facility, to be stored in said trace buffer;

determining, utilizing said trace facility, whether said data includes a keyword; and

in response to a determination that said data includes said keyword, copying, utilizing said trace facility, contents of said trace buffer.

11. (Original): The method according to claim 10, further comprising the step of resetting, utilizing said trace facility, pointers to a top of said trace buffer, wherein data to be stored in said trace buffer is stored starting at said top of said trace buffer.

12. (Currently amended): The method according to claim 1, further comprising the steps of:

providing an exception handler routine;

servicing, utilizing said exception handler routine, said error;

during said servicing, transmitting, utilizing said exception handler routine, said error data to a trace facility to be stored in said trace buffer, said error data being associated with said error;

including with said error data, utilizing said exception handler routine, a keyword;

completing, utilizing said exception handler routine, said servicing of said error.

13. (Canceled)

14. (Currently amended): The method according to claim 1 [[13]], further comprising the step of a partition controlled by said one of said plurality of processors crashing in response to said unrecoverable error.

15. (Currently amended): A method in a logically partitioned data processing system for preserving trace data after a partition crash, said logically partitioned data processing

PAGE 6/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

system including a plurality of processors and a plurality of partitions, each one of said plurality of partitions executing its own separate operating system, errors from an operating system being executed by one of said plurality of partitions not affecting the operation of operating systems being executed by all others of said plurality of partitions, said method comprising the steps of:

providing an exception handler routine;

encountering an unrecoverable error in one of said plurality of processors that is assigned to one of said plurality of partitions that results in a crash of said one of said plurality of partitions, remaining ones of said plurality of partitions continuing to function after said crash, each one of said plurality of processors being assigned to a different one of said plurality of partitions;

servicing, utilizing said exception handler routine, said error;

during said servicing, transmitting, utilizing said exception handler routine, error data to a trace facility to be stored in said trace buffer, said error data being associated with said error;

storing trace data for all of said partitions in said trace buffer;

continually overwriting data that is already stored in said trace buffer with newly received trace data as said newly received trace data is received within said trace buffer;

including with said error data, utilizing said exception handler routine, a keyword;

completing, utilizing said exception handler routine, said servicing of said error;

providing said trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer;

receiving said error data, utilizing said trace facility, to be stored in said trace buffer;

determining, utilizing said trace facility, whether said error data includes a keyword;

in response to a determination that said error data includes said keyword, copying, utilizing said trace facility, contents of said trace buffer; and

resetting, utilizing said trace facility, pointers to a top of said trace buffer, wherein data to be stored in said trace buffer is stored starting at said top of said trace buffer.

PAGE 7/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

16. (Currently amended): A logically partitioned data processing system for preserving trace data after a partition crash, said logically partitioned data processing system including a plurality of processors and a plurality of partitions, each one of said plurality of partitions executing its own separate operating system, errors from an operating system being executed by one of said plurality of partitions not affecting the operation of operating systems being executed by all others of said plurality of partitions, comprising:

means for encountering an unrecoverable error in one of said plurality of processors that is assigned to one of said plurality of partitions that results in a crash of said one of said plurality of partitions, remaining ones of said plurality of partitions continuing to function after said crash, each one of said plurality of processors being assigned to a different one of said plurality of partitions;

means for storing trace data for all of said partitions in said trace buffer;

means for continually overwriting data that is already stored in said trace buffer with newly received trace data as said newly received trace data is received within said trace buffer;

means for storing error data in a trace buffer associated with said error; and

means for saving the current ~~storing~~ contents of said trace buffer prior to said error data being overwritten.

17. (Canceled)

18. (Currently amended): The system according to claim 16, further comprising means for storing said contents of said trace buffer in non-volatile storage prior to said error data being overwritten.

19. (Currently amended): The system according to claim 16, further comprising:

means for encountering said error; and

means for storing a keyword with said error data in said trace buffer.

PAGE 8/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

20. (Currently amended): The system according to claim 19, further comprising means for saving ~~storing~~ contents of said trace buffer in response to a detection of said keyword in said contents of said trace buffer.

21. (Currently amended): The system according to claim 16, further comprising:

means for encountering said error;

means for servicing said error; and

means for storing a keyword with said error data in said trace buffer during said servicing of said error.

22. (Original): The system according to claim 21, further comprising means for rebooting said one of said plurality of partitions after said storage of said keyword.

23. (Currently amended): The system according to claim 16, further comprising:

means for providing a trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer; and

means for storing said error data in a trace buffer associated with said error utilizing said trace facility.

24. (Original): The system according to claim 16, further comprising:

means for receiving data to be stored in said trace buffer;

means for determining whether said data includes a keyword; and

in response to a determination that said data includes said keyword, means for copying contents of said trace buffer.

25. (Original): The system according to claim 16, further comprising:

means for providing a trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer;

means for receiving data, utilizing said trace facility, to be stored in said trace buffer;

PAGE 9/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

means for determining, utilizing said trace facility, whether said data includes a keyword; and

in response to a determination that said data includes said keyword, means for copying, utilizing said trace facility, contents of said trace buffer.

26. (Original): The system according to claim 25, further comprising means for resetting, utilizing said trace facility, pointers to a top of said trace buffer, wherein data to be stored in said trace buffer is stored starting at said top of said trace buffer.

27. (Currently amended): The system according to claim 16, further comprising:

means for providing an exception handler routine;

means for servicing, utilizing said exception handler routine, said error;

means for during said servicing, transmitting, utilizing said exception handler routine, said error data to a trace facility to be stored in said trace buffer, said error data being associated with said error;

means for including with said error data, utilizing said exception handler routine, a keyword;

means for completing, utilizing said exception handler routine, said servicing of said error.

28. (Canceled)

29. (Currently amended): The system according to claim 16 [[28]], further comprising means for a partition controlled by said one of said plurality of processors crashing in response to said unrecoverable error.

30. (Currently amended): A logically partitioned data processing system for preserving trace data after a partition crash, said logically partitioned data processing system including a plurality of processors and a plurality of partitions, each one of said plurality of partitions executing its own separate operating system, errors from an operating system being executed by one of said plurality of partitions not affecting the

PAGE 10/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

operation of operating systems being executing by all others of said plurality of partitions, comprising:

means for providing an exception handler routine;

means for encountering an unrecoverable error in one of said plurality of processors that is assigned to one of said plurality of partitions that results in a crash of said one of said plurality of partitions, remaining ones of said plurality of partitions continuing to function after said crash, each one of said plurality of processors being assigned to a different one of said plurality of partitions;

means for servicing, utilizing said exception handler routine, said error;

means for during said servicing, transmitting, utilizing said exception handler routine, error data to a trace facility to be stored in said trace buffer, said error data being associated with said error;

means for storing trace data for all of said partitions in said trace buffer;

means for continually overwriting data that is already stored in said trace buffer with newly received trace data as said newly received trace data is received within said trace buffer;

means for including with said error data, utilizing said exception handler routine, a keyword;

means for completing, utilizing said exception handler routine, said servicing of said error;

means for providing said trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer;

means for receiving said error data, utilizing said trace facility, to be stored in said trace buffer;

means for determining, utilizing said trace facility, whether said error data includes a keyword;

in response to a determination that said error data includes said keyword, means for copying, utilizing said trace facility, contents of said trace buffer; and

means for resetting, utilizing said trace facility, pointers to a top of said trace buffer, wherein data to be stored in said trace buffer is stored starting at said top of said trace buffer.

PAGE 11/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

31. (Currently amended): A computer program product in a logically partitioned data processing system for preserving trace data after a partition crash, said logically partitioned data processing system including a plurality of processors and a plurality of partitions, each one of said plurality of partitions executing its own separate operating system, errors from an operating system being executed by one of said plurality of partitions not affecting the operation of operating systems being executed by all others of said plurality of partitions, said product comprising:

instruction means for encountering an unrecoverable error in one of said plurality of processors that is assigned to one of said plurality of partitions that results in a crash of said one of said plurality of partitions, remaining ones of said plurality of partitions continuing to function after said crash, each one of said plurality of processors being assigned to a different one of said plurality of partitions;

instruction means for storing trace data for all of said partitions in said trace buffer;

instruction means for continually overwriting data that is already stored in said trace buffer with newly received trace data as said newly received trace data is received within said trace buffer;

instruction means for storing error data in a trace buffer associated with said error; and

instruction means for saving the current ~~storing~~ contents of said trace buffer prior to said error data being overwritten.

32. (Canceled)

33. (Currently amended): The product according to claim 31, further comprising instruction means for saving storing said contents of said trace buffer in non-volatile storage prior to said error data being overwritten.

34. (Currently amended): The product according to claim 31, further comprising:

instruction means for encountering said error; and

instruction means for storing a keyword with said error data in said trace buffer.

PAGE 12/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

35. (Currently amended): The product according to claim 34, further comprising instruction means for saving ~~storing~~ contents of said trace buffer in response to a detection of said keyword in said contents of said trace buffer.

36. (Currently amended): The product according to claim 31, further comprising:

instruction means for encountering said error;

instruction means for servicing said error; and

instruction means for storing a keyword with said error data in said trace buffer during said servicing of said error.

37. (Original): The product according to claim 36, further comprising instruction means for rebooting said one of said plurality of partitions after said storage of said keyword.

38. (Currently amended): The product according to claim 31, further comprising:

instruction means for providing a trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer; and

instruction means for storing said error data in a trace buffer associated with said error utilizing said trace facility.

39. (Original): The product according to claim 31, further comprising:

instruction means for receiving data to be stored in said trace buffer;

instruction means for determining whether said data includes a keyword; and

in response to a determination that said data includes said keyword, instruction means for copying contents of said trace buffer.

40. (Original): The product according to claim 31, further comprising:

instruction means for providing a trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer;

instruction means for receiving data, utilizing said trace facility, to be stored in said trace buffer;

PAGE 13/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

instruction means for determining, utilizing said trace facility, whether said data includes a keyword; and

in response to a determination that said data includes said keyword, instruction means for copying, utilizing said trace facility, contents of said trace buffer.

41. (Original): The product according to claim 40, further comprising instruction means for resetting, utilizing said trace facility, pointers to a top of said trace buffer, wherein data to be stored in said trace buffer is stored starting at said top of said trace buffer.

42. (Currently amended): The product according to claim 41, further comprising:

instruction means for providing an exception handler routine;

instruction means for servicing, utilizing said exception handler routine, said error;

during said servicing, instruction means for transmitting, utilizing said exception handler routine, said error data to a trace facility to be stored in said trace buffer, said error data being associated with said error;

instruction means for including with said error data, utilizing said exception handler routine, a keyword;

instruction means for completing, utilizing said exception handler routine, said servicing of said error.

43. (Canceled)

44. (Currently amended): The product according to claim 31 [[43]], further comprising instruction means for a partition controlled by said one of said plurality of processors crashing in response to said unrecoverable error.

45. (Currently amended): A computer program product in a logically partitioned data processing system for preserving trace data after a partition crash, said logically partitioned data processing system including a plurality of processors and a plurality of

PAGE 14/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

partitions, each one of said plurality of partitions executing its own separate operating system, errors from an operating system being executed by one of said plurality of partitions not affecting the operation of operating systems being executed by all others of said plurality of partitions, said product comprising:

instruction means for providing an exception handler routine;

instruction means for encountering an unrecoverable error in one of said plurality of processors that is assigned to one of said plurality of partitions that results in a crash of said one of said plurality of partitions, remaining ones of said plurality of partitions continuing to function after said crash, each one of said plurality of processors being assigned to a different one of said plurality of partitions;

instruction means for servicing, utilizing said exception handler routine, said error;

during said servicing, instruction means for transmitting, utilizing said exception handler routine, error data to a trace facility to be stored in said trace buffer, said error data being associated with said error;

instruction means for storing trace data for all of said partitions in said trace buffer;

instruction means for continually overwriting data that is already stored in said trace buffer with newly received trace data as said newly received trace data is received within said trace buffer;

instruction means for including with said error data, utilizing said exception handler routine, a keyword;

instruction means for completing, utilizing said exception handler routine, said servicing of said error;

instruction means for providing said trace facility, said trace facility for receiving trace data and writing trace data to said trace buffer;

instruction means for receiving said error data, utilizing said trace facility, to be stored in said trace buffer;

instruction means for determining, utilizing said trace facility, whether said error data includes a keyword;

PAGE 15/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

in response to a determination that said error data includes said keyword, instruction means for copying, utilizing said trace facility, contents of said trace buffer; and

instruction means for resetting, utilizing said trace facility, pointers to a top of said trace buffer, wherein data to be stored in said trace buffer is stored starting at said top of said trace buffer.

PAGE 16/21 * RCVD AT 12/28/2004 4:56:37 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:9723857766 * DURATION (mm-ss):05-42

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.
As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.